

THE OFFICE ACTION

In the Office Action issued on June 28, 2004, the Examiner rejected claims 1-6, and 8-14 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner also rejected claims 1-6, and 8-14 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. The Examiner rejected claims 1, 8-11, 13 and 14 under 35 U.S.C. §102/103 as anticipated by or obvious over the English abstract of FR2730783 ("Chapellier"). The Examiner further rejected claims 1, 8-15, 22, 23, and 25-30 under 35 U.S.C. §103(a) as being unpatentable over Chapellier in view of either U.S. Patent No. 5,183,613 to Edwards (Edwards) or U.S. Patent No. 5,415,822 to Cook (Cook). The Examiner also rejected claims 2-6 and 16-20 under 35 U.S.C. §103(a) as being unpatentable over Chapellier or Chapellier in view of either one of Edwards or Cook and further in view of U.S. Patent No. 3,646,155 to Scott et al. (Scott). The Examiner also rejected claims 1, 2, 8-16, 19, 22, 23, and 25-30 under 35 U.S.C. §103(a) as being unpatentable over Edwards in view of either Chapellier or Cook. The Examiner also rejected claims 2-6 and 16-20 under 35 U.S.C. §103(a) as being unpatentable over Edwards in view of either Chapellier or Cook and further in view of Scott.

REMARKS

Applicants have carefully considered the final Office Action issued on June 28, 2004. Applicants respectfully request reconsideration of the application in light of the following comments.

A. Claims 1-6 and 8-14 Comply with 35 U.S.C. §112

The Examiner rejected claims 1-6 and 8-14 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, it is the Examiner's position that the specification fails to provide support for the recitation that the crosslinkable thermoplastic consists essentially of polyolefin. The Examiner also rejected claims 1-6, and 8-14 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter. Specifically, it is the Examiner's position that the term "essentially" is a relative term that renders the claim indefinite.

The Examiner first presented this rejection after the applicants' amended claim 1 to recite that the crosslinkable thermoplastic consisted essentially of polyolefin. The Examiner argued that this amendment constituted new matter. In the most recent office action, the Examiner stated, "Specifically, the specification does not disclose any additional materials that that could be used in the crosslinkable thermoplastic that do not materially affect the basic characteristics of the crosslinkable thermoplastic."

Applicants are somewhat at a loss as to how to respond to this rejection, as it presents, at least to the undersigned's knowledge, a completely novel rejection that finds no basis in law or logic. As far as the Applicants can determine, and based on the above quotation, the Examiner's rejection is essentially based on the fact that the specification fails to disclose additional materials that can be included in the thermoplastic that DO NOT materially affect the characteristics of the thermoplastic.

Applicants submit that it is permissible to limit claims to a more narrow scope than the broadest embodiment in the specification. While it is true that amended claims cannot be broader than the original disclosure, the converse does not apply. That is, while the broadest description of the abrasion resistant layer in the specification does not exclude the possibility of additional components, it is perfectly within the Applicants' rights to narrow the present claims to recite an abrasion resistant layer to a crosslinked thermoplastic consisting essentially of a polyolefin. In this respect, Applicants note that, in one embodiment, the specification discloses that the crosslinkable thermoplastic includes a moisture crosslinkable polyolefin without any additional recited components.

What type of recitation in the specification would the Examiner have required to allow such an amendment? A patent specification is not an exhaustive technical manual on a subject. Rather, it is intended to teach someone skilled in the art how to practice the invention. In the present case, Applicants are not required to list any material that could possibly be included in the crosslinkable thermoplastic, including those materials that DO NOT affect its material characteristics. An almost limitless number of contaminants and additives may be included in the present

crosslinkable thermoplastic. Applicants are not required to list all of these to be entitled to use the claim language "consisting essentially of...".

Applicants submit that it is this very fact, i.e. that the specification only discloses polyolefin as the material for use in the crosslinkable thermoplastic, that permits the contested amendment. That is, because the specification doesn't disclose additional required materials in the crosslinkable thermoplastic that affect its basic characteristics, the use of the phrase "consisting essentially of" is appropriate.

Although the specification does not recite additional materials for use in the crosslinkable thermoplastic; it also does not preclude the possibility of additional materials. This is important. The fact that any additional materials not affecting the material characteristics of the thermoplastic are not listed does not mean that those materials cannot be present. It is perfectly within the Applicants' rights to narrow the present claims to recite an abrasion resistant layer to a crosslinked thermoplastic consisting essentially of a polyolefin.

To highlight the inconsistency of the Examiner's opinion, Applicants point to the Examiner position in the previous final office action and the advisory action. In the final office action and in support of the present rejection, the Examiner stated, "[I]t is unclear where in the specification the crosslinkable thermoplastic is described as 'consisting essentially of polyolefin'. It is noted the specification does disclose the crosslinkable thermoplastic as 'comprising a polyolefin'." Based on this statement, it would follow that the Examiner would have had no problem if the amendment read "comprising polyolefin". Similarly, in the quotation from the advisory action cited above, the Examiner notes that no additional materials besides polyolefin are disclosed. Based on this, the Examiner would also apparently have had no problem if the amendment had been made to read "consisting of polyolefin." Based on this, the Examiner's rejection of the phrase "consisting essentially of", which is of intermediate scope between the broad "comprising" and the relatively narrow "consisting of" language, is illogical. How can both a broader and narrower scope be acceptable while an intermediate scope is not? This only highlights the inconsistency of the Examiner's position.

In addition, in the most recent office action the Examiner states "It is unclear where in the specification the exclusion of any materials (specifically any of the materials that do not affect the basic and novel characteristics of the

crosslinkable thermoplastic) is disclosed such that there is no support in the specification to claim, 'consisting essentially of'. Applicants are completely confused by this statement, but read it to mean that because the specification does not specifically exclude materials from the crosslinkable thermoplastic, than such a recitation is improper. The Examiner would thus require every application he is examining to not only list the materials that are included in a composition, but also those materials that are to be excluded?! This is completely improper and not required by the patent laws.

B. The Pending Claims Are Not Anticipated or Obvious Over Chapellier

The Examiner rejected claims 1, 8-11, 13 and 14 under 35 U.S.C. §102/103 as anticipated by or obvious over Chapellier. Applicants respectfully traverse for at least the following reasons.

First, it is improper for the Examiner to cite the English language abstract of Chapellier as prior art. As noted in MPEP §706.02, subheading "RELIANCE UPON ABSTRACTS AND FOREIGN LANGUAGE DOCUMENTS IN SUPPORT OF A REJECTION", Applicants note that reliance upon an English abstract of a foreign language patent document is improper. As noted in this section, "If the document is in a language other than English and the examiner seeks to rely on that document, a translation must be obtained so that the record is clear as to the precise facts the examiner is relying upon in support of the rejection." (Emphasis added). One reason for this is that the full text document may include teachings away from a rejection when the abstract alone appears to support the rejection. Thus, applicants submit that the Examiner's reliance on the English language abstract is improper and that this rejection must therefore be withdrawn.

Further, even if this abstract was a proper reference, the amendment to claim 1 patentably distinguishes claim 1 and the rejected base claims over Chapellier. Withdrawal of this rejection is requested.

C. The Pending Claims are not Obvious Over Chapellier in view of Edwards or Cook

The Examiner further rejected claims 1, 8-15, 22, 23, and 25-30 under 35 U.S.C. §103(a) as being unpatentable over Chapellier in view of either Edwards or Cook. Applicants respectfully traverse for at least the following reasons.

First, as noted above, the English language abstract of Chapellier is an invalid reference, as noted above. Second, with the amendments to claims 1 and 15, Applicants submit that the claims as written are not obvious over Chapellier in view of Edwards or Cook. This is supported by the fact that claims 2 and 16, the recitations of which were added to claims 1 and 15, respectively, were not rejected. Thus, applicants request withdrawal of this rejection.

D. The Pending Claims are Not Obvious Over Chapellier or Chapellier in View of Either Cook or Chapellier

The Examiner also rejected claims 2-6 and 16-20 under 35 U.S.C. §103(a) as being unpatentable over Chapellier or Chapellier in view of either one of Edwards or Cook and further in view of Scott. Applicants respectfully traverse.

First, and with regard to an obviousness rejection over Chapellier, Chapellier does not disclose or suggest the use of moisture crosslinkable silane grafted polyolefin. Thus, Chapellier by itself does not render the present claims unpatentable.

Second, and as noted above with the previous rejections, the Chapellier abstract is an improper reference for the Examiner to rely on.

Third, even if the Chapellier abstract was a proper reference, and with respect to the combination of references, there is no motivation to combine the three references. As detailed in the response to the previous office action, to properly combine references under 35 U.S.C. §103, there must be some suggestion or motivation to modify or combine reference teachings (MPEP §2143.01).

That is, there is no motivation to combine Scott with either Edwards or Cook and Chapellier. In support of his position, the Examiner states "one of ordinary skill in the art at the time the invention was made would have readily appreciated using as the crosslinkable polyethylene...any well known and conventional crosslinkable polyethylene such as a seam bath crosslinked silane grafted

polyethylene as shown for example by Scott et al. as this was a known crosslinkable polyethylene that is crosslinked under less critical crosslinking conditions than those which are normally present in the conventional crosslinking techniques." What "critical crosslinking conditions" is the Examiner referring to? Applicants submit that crosslinking using silane grafting techniques are at least as "critical" as other crosslinking techniques. Applicants submit that the presence of a steam bath and the requirement of the silane graft present at least as critical conditions as other techniques. The Examiner completely failed to address this discrepancy in his office action, which has been raised in previous responses. Thus, Applicants submit that the proposed combination of Chapellier in view of Edwards or Cook, in view of Scott, fails to render the present claims unpatentable. Withdrawal of this rejection is respectfully requested.

E. The Pending Claims are Not Obvious Over Edwards in view of either Cook or Chapellier

The Examiner also rejected claims 1, 2, 8-16, 19, 22, 23, and 25-30 under 35 U.S.C. §103(a) as being unpatentable over Edwards in view of either Chapellier or Cook. Applicants respectfully traverse.

First, and as noted above with the previous rejections, the Chapellier abstract is an improper reference for the Examiner to rely on.

Second, despite the Examiner's arguments, there is no motivation to combine the teachings of Edwards with either Chapellier or Cook. With respect to a proposed combination of Edwards and Chapellier or Cook, the Examiner states, "It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the polyolefin as taught by Edwards any well known and conventional polyolefin such as a crosslinkable polyolefin...as shown for example by either one of Chapellier or Cook". Even assuming for the purposes of argument that one skilled in the art would have appreciated that a crosslinkable polyolefin could have been used in the invention of Edwards, the absence of any motivation to do so precludes the finding of obviousness.

In this respect, the mere fact that a prior art device could be modified so as to produce the claimed invention is not a basis for an obviousness rejection unless the prior art suggested the desirability of such a modification. *In re Gordon*,

221 USPQ 1125 (Fed. Cir. 1984) (the combination of the references taught every element of the claimed invention. However, without a motivation to combine a rejection based on a *prima facie* case of obviousness is improper.) Here, the Examiner has not provided any reasons why one skilled in the art would be motivated to combine the teachings of Cook and Edwards. At most he has provided an argument that one skilled in the art recognized that such a combination is possible. A recognition that something can be done is distinct from a motivation to do it. Absent such a suggestion or motivation, the Examiner's combining of the two references is a classic example of impermissible hindsight reconstruction. *Texas Instruments, Inc. v. U.S. Int'l Trade Comm'n*, 26 USPQ2d 1018 (Fed. Cir. 1993). Conclusory statements on the propriety of combining the teachings of prior art references, such as those provided by the Examiner in this case, are insufficient to sustain an obviousness rejection. *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002).

Applicants submit that, despite the Examiner's arguments, one skilled in the art would not have readily appreciated using a crosslinkable polyolefin as the polyolefin taught by Edwards. In support of his position, Examiner states "it is noted Edwards is directed to using general polyolefins known to one in the art, and Edwards is not limited to any particular, i.e. crosslinkable or non-crosslinkable, polyolefin. (Office Action, pg. 10).

Applicants submit that this is a mischaracterization of the materials and that such a substitution is not as straightforward as the Examiner would have it seem. In this respect, applicants take issue with the Examiner's contention that because Edwards does not explicitly disclose that the polyolefins used therein are uncrosslinked, that a crosslinked polyolefin is contemplated and could thus be used. The Examiner will appreciate that due to absence of unsaturation, conventional polyolefins are not crosslinked or crosslinkable by ordinary means. That is, polyolefins require specialized crosslinking techniques due to this absence of double bonds in the polymer backbone. To one skilled in the art, the use of the term "polyolefin" denotes a conventional uncrosslinked polyolefin. A positive recitation of crosslinking is required to denote a specialized crosslinkable polyolefin. It is improper and misleading for the Examiner to thus contend that Edwards supports the use of crosslinked polyolefins without any positive recitation of this.

Further, and most importantly, the applicants note that Edwards repeatedly refers to the polyolefin as a thermoplastic throughout the patent. A crosslinked polyolefin would take on at least some characteristics of a thermoset. Failure of Edwards to note this is further evidence that only an uncrosslinked polyolefin is contemplated as the abrasion resistant layer therein.

In addition, Cook relates to a method of forming a composite extrusion in which an elastomer rubber main body member is cured prior to mating with a thermoplastic layer, while Edwards specifically teaches curing the elastomeric substrate after contacting it with the melted polyolefin compound (col. 5, lines 52-60, claim 1). These two references are drawn to different processes to making composite extrusions. One skilled in the art practicing the invention of Edwards would not be motivated to use the teachings disclosed in Cook since Cook relates to a different process, and there is no indication that these teachings would be suitable for use therein. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 123 USPQ 349 (CCPA 1959). Here, that is exactly what the Examiner is proposing – changing the principle of operation of the references in an attempt to meet the recitations of the present claims.

Even assuming the correctness of the Examiner's contention that Cook discloses a crosslinked polyolefin thermoplastic, then its proposed use in the method disclosed in Edwards would be impossible. That is, Edwards discloses that the polyolefin coating is substantially melted when adhered to the elastomer substrate (col. 8, lines 36-47). Once cured, a crosslinked thermoplastic will not remelt. That is, crosslinking provides molecular rigidity that prevents remelting of a compound. Thus, assuming that the Examiner is correct in his statement that Cook discloses a crosslinked polyolefin thermoplastic, such a polyolefin would not be suitable for use in Edwards, which requires that the polyolefin coating be substantially melted in his process. Thus, Edwards actually teaches away from the use of a crosslinked polyolefin. As the Examiner will note, it is improper to combine references where the references teach away from their combination. *In re Trasselli*, 218 USPQ 769 (Feb. Cir. 1983). For at least these reasons, Applicants submit that the combination of Cook and Edwards fails to render the present claims obvious.

Furthermore, and with respect to claims 8 and 22, even assuming the propriety of the proposed combination, such a combination fails to disclose or suggest contacting the elastomer rubber with the crosslinkable thermoplastic before the step of at least partially crosslinking the thermoplastic. In support of his rejection, the Examiner states

regarding claims 8 and 22, it is noted that Edwards teaches the abrasion resistant layer is co-extruded along with the channel member and the two layers are contacted directly after extrusion, i.e. Edwards teaches the extruded abrasion resistant layer contacts the uncured channel member (Col. 11, lines 24-33), such that it would have been obvious to one of ordinary skill in the art at the time the invention was made that the modification of Edwards with the crosslinkable abrasion resistant layer taught by either Chapellier or Cook would create a process wherein the abrasion resistant layer is crosslinked after the channel member because (1) the two layers are co-extruded, i.e. the abrasion resistant layer could not be extruded if it were already crosslinked and (2) the layers are contacted directly after extrusion. (Office Action, pg. 10-11)

With regard to Examiners point (1), applicants respectfully disagree. First, a crosslinked abrasion resistant layer could be extruded if the degree of crosslinking was not extensive. That is, the amount of crosslinking in a polymer is a continuum, ranging from fully crosslinked (a rubber) to a lightly crosslinked polymer. A lightly crosslinked polymer may still melt to some degree, at least enough to be extruded. Second, irrespective of the amount of crosslinking in a polymer, the polymer may still be extruded after crosslinking if it was still in its molten state. That is, while a heavily crosslinked polymer will not remelt once it solidifies, it may be processed (e.g. extruded) while still in its molten state. With regard to Examiners point (2), nowhere does Edwards or Cook require that the layers be contacted immediately after extrusion with no intervening steps. Edwards teaches contacting of the layers directly after co-extrusion because Edwards does not disclose any crosslinking step for the abrasion resistant layer because it does not contemplate the use of a crosslinkable abrasion resistant layer. For the Examiner to thus simply conclude that a crosslinking step, if present, would of course be subsequent to the contacting step is disingenuous. There is absolutely no support for this assertion in either Edwards or Cook. Nowhere does Edwards or Cook require that the layers be contacted

immediately after extrusion with no intervening steps. The Examiner has no support for his position that, assuming the presence of such a crosslinking step, it could not feasibly take place after extrusion and before contact of the two layers. Neither Cook nor Edwards discloses a step of crosslinking the abrasion resistant layer. The Examiner has no support for his position that, assuming the presence of such a crosslinking step, it could not feasibly take place after extrusion and before contact of the two layers.

Finally, none of the references- Edwards, Cook, or Chapellier- disclose a moisture crosslinkable polyolefin for use as the abrasion resistant layer. For at least these reasons, applicants request withdrawal of this rejection.

F. The Present Claims Are Not Obvious Over Edwards and either Chapellier or Cook in View of Scott

The Examiner also rejected claims 2-6 and 16-20 under 35 U.S.C. §103(a) as being unpatentable over Edwards in view of either Chapellier or Cook and further in view of Scott. Applicants respectfully traverse.

First, there is no motivation to combine the references. To properly combine references under 35 U.S.C. §103 there must be some suggestion or motivation to combine the teachings of these separate references. In this respect, the lack of motivation for combining Edwards and Cook or Chapellier is outlined above. Further, there is no motivation to combine Scott with either Edwards or Cook or Chapellier. In support of his position, the Examiner states "one of ordinary skill in the art at the time the invention was made would have readily appreciated using as the moisture crosslinkable polyolefin taught by Edwards as modified by either one of Chapellier or Cook...[a] crosslinked silane grafted polyethylene as shown for example by Scott et al. as this was a known crosslinkable polyethylene that is crosslinked under less critical crosslinking conditions than those which are normally present in the conventional crosslinking techniques." Again, what "critical crosslinking conditions" is the Examiner referring to? The Examiner has simply conjured up some alleged "critical conditions" for other types of crosslinking that are to be avoided. However, he has provided absolutely no identification of these mysterious

"critical conditions". Applicants submit that crosslinking using silane grafting techniques are at least as "critical" as other crosslinking techniques. Applicants submit that the presence of a steam bath and the requirement of the silane graft present at least as critical conditions as other techniques. Thus, Applicants submit that the proposed combination of Edwards and either Chapellier or Cook, in view of Scott, fails to render the present claims unpatentable. Withdrawal of this rejection is respectfully requested.

CONCLUSION

In view of the foregoing comments, Applicants submit that claims 1, 3-6, 8-15, 17-20, 22, 23 and 25-30 are in condition for allowance. Applicants respectfully request early notification of such allowance. Should any issues remain unresolved, the Examiner is encouraged to contact the undersigned to attempt to resolve any such issues.

If any fee is due in conjunction with the filing of this response, Applicants authorize deduction of that fee from Deposit Account 06-0308.

Respectfully submitted,

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Attachment: MPEP §706.2